

 **Test 12 (Lessons 23–24): Solving Quadratic Equations****Solve.**

**1)**  $(2x + 7)^2 = 20$

**2)**  $6x^2 + 2x = 0$

- 3)**
- Given the solutions, without determining the exact equation, explain the degree you would expect the equation to have.

$$x = \pm 15i, -\frac{3}{8}$$

**Name the value that will result in a perfect square trinomial. Show your work.**

**4)**  $x^2 + \frac{5}{3}x + c$

**5)**  $x^2 + bx + \frac{121}{4}$

- 6) Solve by completing the square.

$$2x^2 + 6x + 7 = 0$$

- 7) Name any missing roots. Then determine a possible polynomial equation to represent the roots.

$$i, -\sqrt{7}$$

- 8) Solve by completing the square.

$$x^2 - 8x = -4$$